



# Oregon MSP

## Why We Marine Spatial Plan:

1. Marine Reserve Program Implementation
2. Marine Renewable Energy Development
3. Governor's Executive Order March 2008
4. President's Executive Order July 2010
5. WCGA

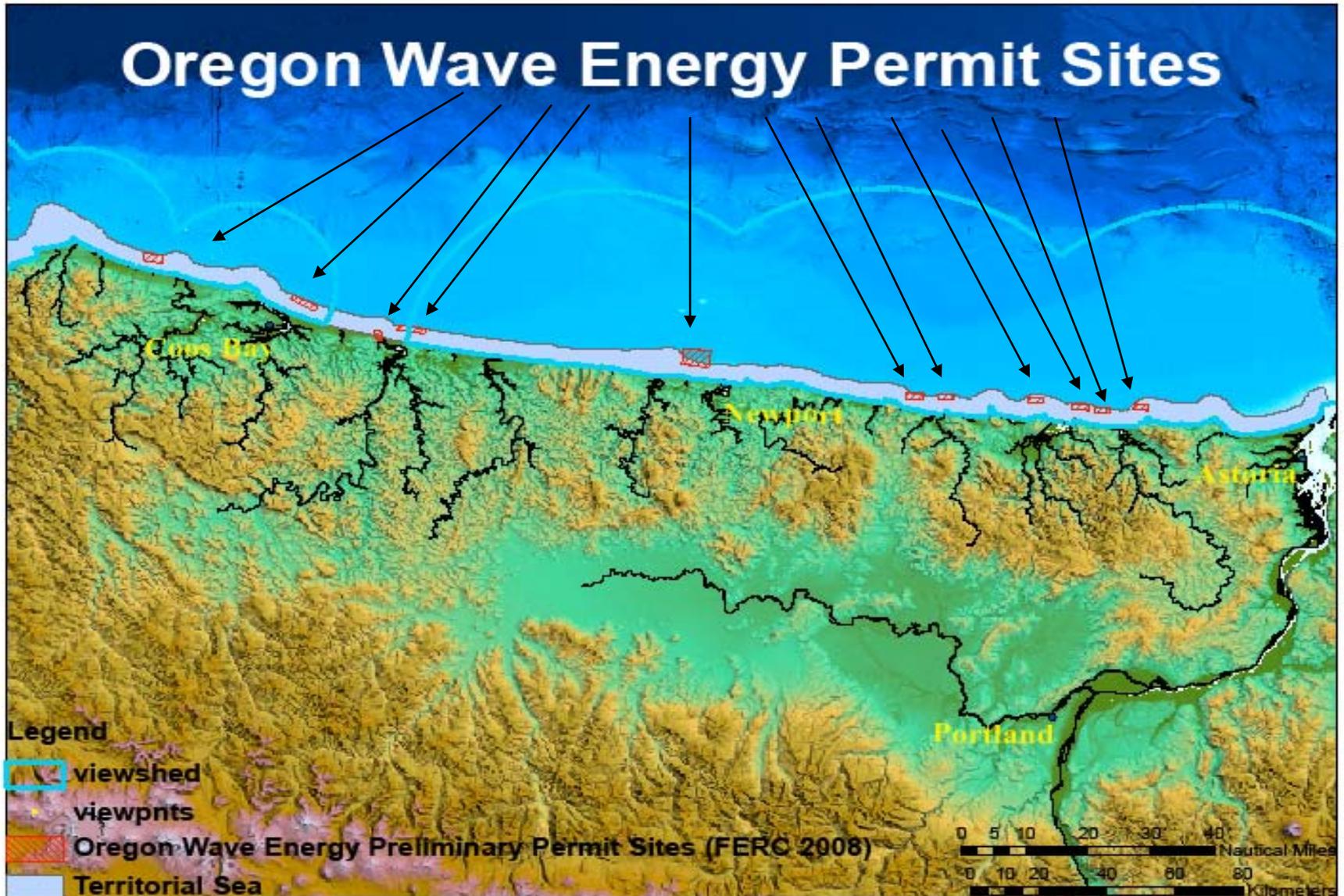


New Ocean Use

# Traditional Ocean User



# Wave Energy Goldrush of 2007-2008



Wave Energy Site Information gathered from the FERC website and plotted by the USFWS and DLCD.

Cartography by Andy Lanier  
DEM courtesy of the Active Tectonics and Seafloor Mapping Lab



# **State ocean planning framework:**

## **Statewide Planning Goal 19, Ocean Resources**

(mandates protection of important marine habitat and areas important to fisheries)

## **Oregon Ocean Resources Management Act**

(creates state-ocean governance structure)

## **Oregon Territorial Sea Plan**

(contains specific policies for state ocean management )

## **Other Agency Authorities and Programs**

## **Ocean Policy Advisory Council**

## **Ocean science capacity at OSU/UO/ODFW**

# **Statewide Goal 19 Ocean Resources**

## **PROTECT:**

- **Renewable Marine Resources – i.e. Living Marine Organisms;**
- **Biological Diversity & Functional Integrity of Marine Ecosystems;**
- **Important Marine Habitat;**
- **Areas Important to Fisheries – commercial and recreational;**
- **Beneficial Uses: Navigation, Recreation, Food Production, Aesthetic, Seafloor Uses.**

# **Oregon MSP**

## **Marine Renewable Energy Planning (Territorial Sea Plan Amendment)**

- **Governor Executive Order March 2008**
- **MOA between Oregon and FERC**
- **BOEMRE – Oregon Task Force**

### **Phase 1. TSP Part 5: Policies and Standards**

- **2 stakeholder/public advisory committees**
- **Advice from Ocean Policy Advisory Council**
- **Adopted November 2009 by LCDC**

# **Oregon MSP**

## **Governor's Executive Order of March 2008**

**An 8-month long public nomination process resulted in 5 marine reserve sites being designated by 2009 Oregon Legislature.**

**This was made possible by:**

- aggregating data from multiple sources**
- using the Web to provide information and data to the public**
- using decision-support technologies to conduct spatial analysis of data for decision-making**



# **Marine Renewable Energy Planning (amendment to Territorial Sea Plan)**

## **Phase 2. Spatial Mapping Process**

- Commercial and recreational fisheries data collected through local advisory committees for areas important to fisheries (Winter 2011)**
- Ecological data: Oregon Dept Fish and Wildlife and The Nature Conservancy (Summer 2011)**
- Seafloor bathymetric and image data (Summer 2011)**
- Recreational ocean use: on-line surveys (Fall 2010)**
- Other spatial data on human uses, managed resources, physical conditions, and shoreland facilities (Fall 2010)**

**Spatial Mapping and Analysis: Fall 2011**

# Oregon MSP

Map overlay of areas important to fisheries for:

Coos Bay

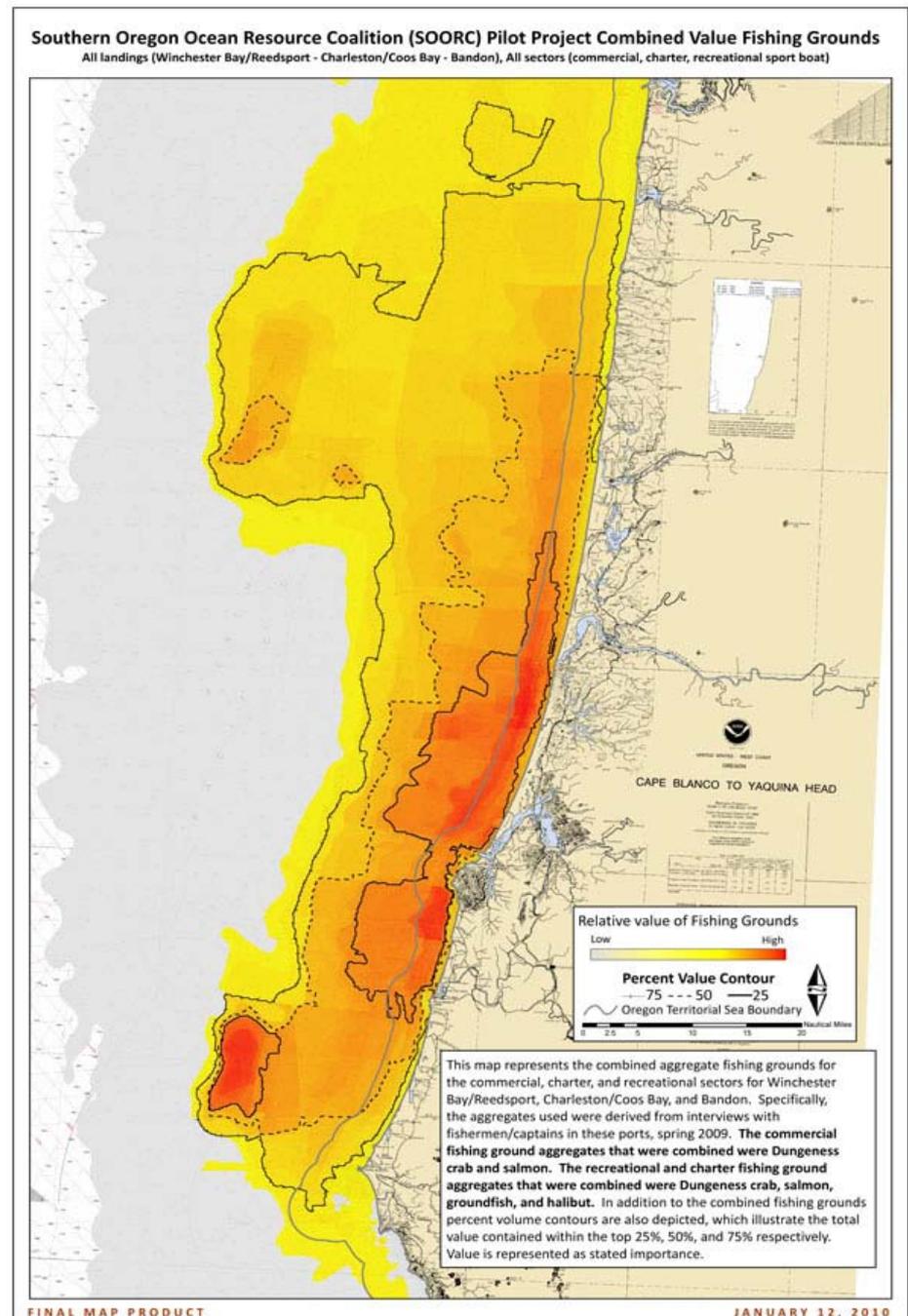
Charleston

Bandon

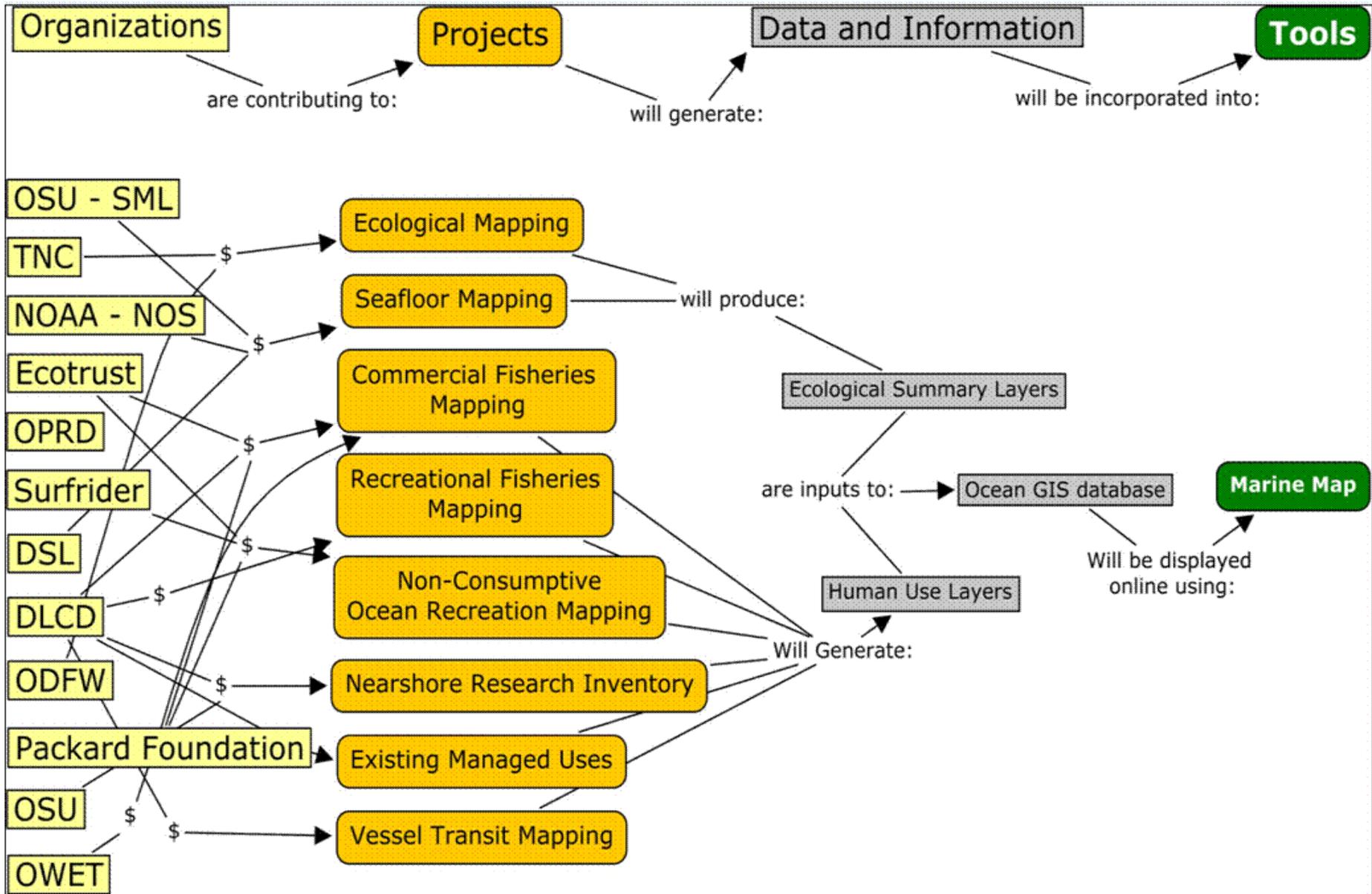
Reedsport

Data Collection for all ports to be completed by fall 2010

Surveys of commercial, charter and recreational fishing effort



# The Moving Parts of MSP: Technological Roadmap



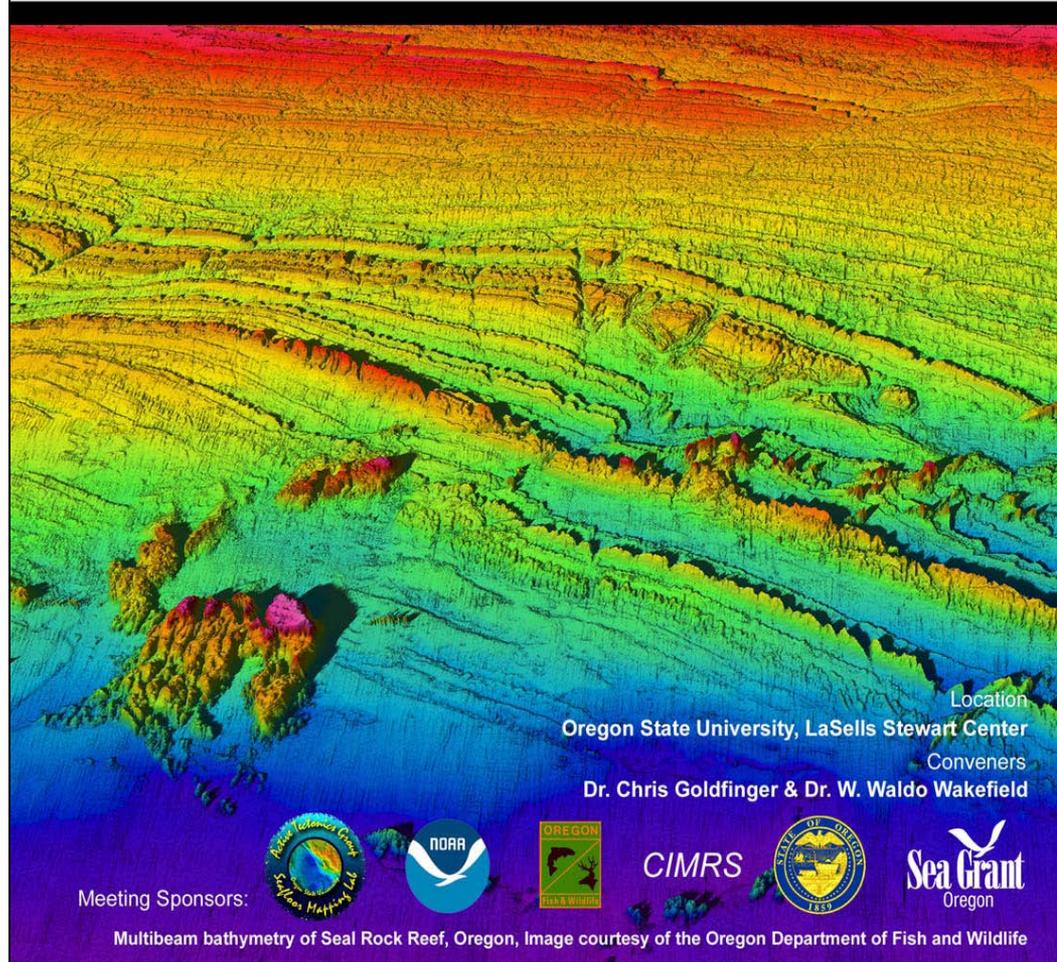
# Oregon MSP

## Seafloor mapping of the Territorial Sea:

NOAA / Contractors  
coordinated by Oregon State  
University

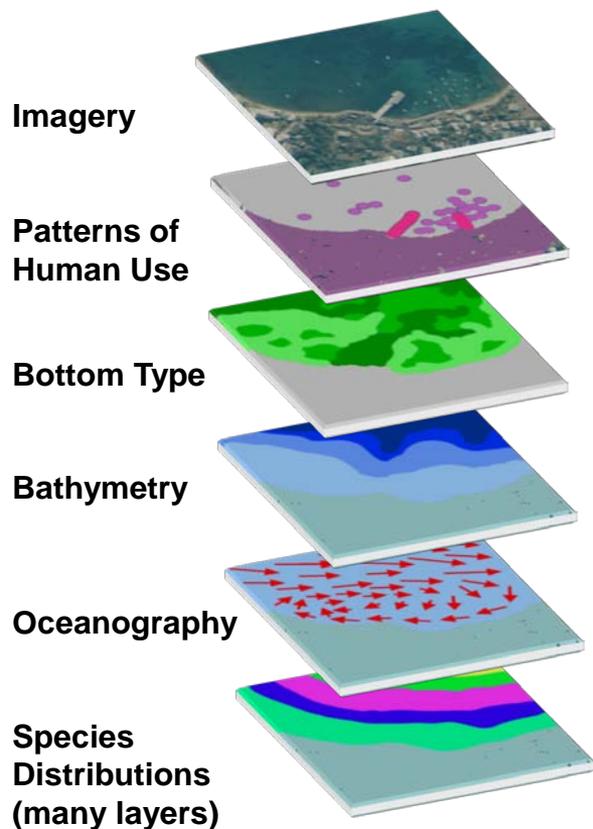
- Seafloor mapping workshop
- Priority Areas Selected
- Field work completed 2010
- < 50% of the territorial sea

## Oregon State Seafloor Mapping Workshop



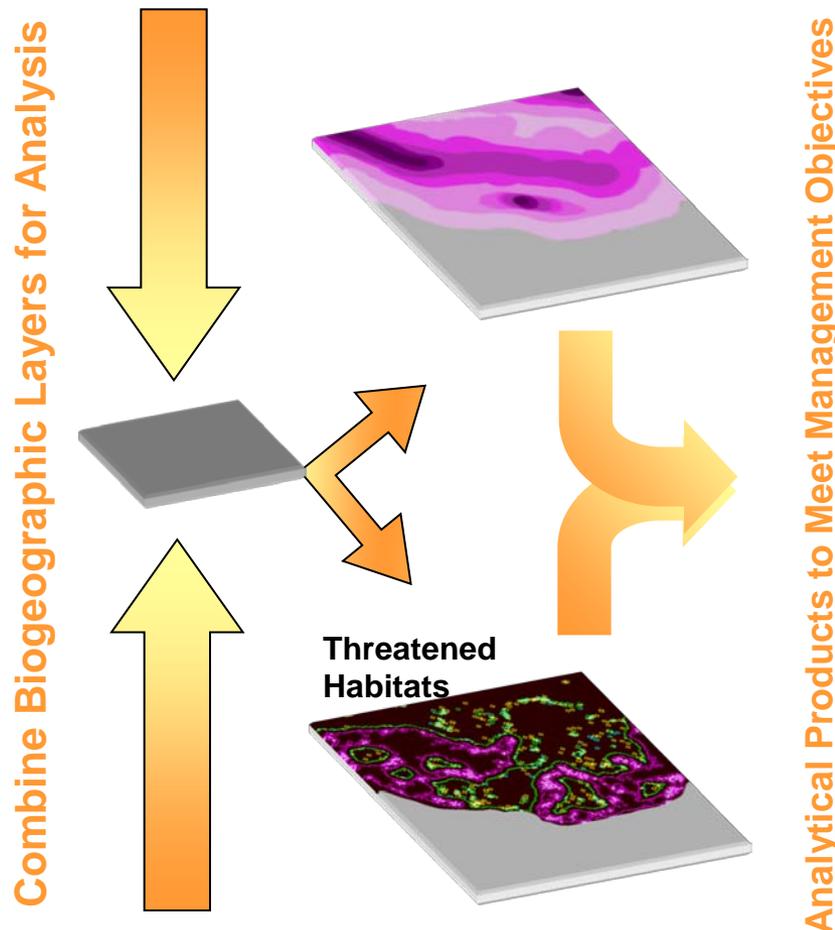
# Biogeographic Assessment Approach

## Biogeographic Data Layers



## Example Integrated Biogeographic Analyses\*

\* Specific analyses targeted to management needs



## Products to Aid Management

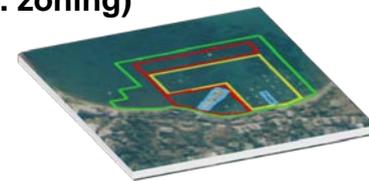
Defining and analyzing existing conditions



Defining and analyzing future conditions



Evaluate alternative management strategies (e.g. zoning)



November 2010

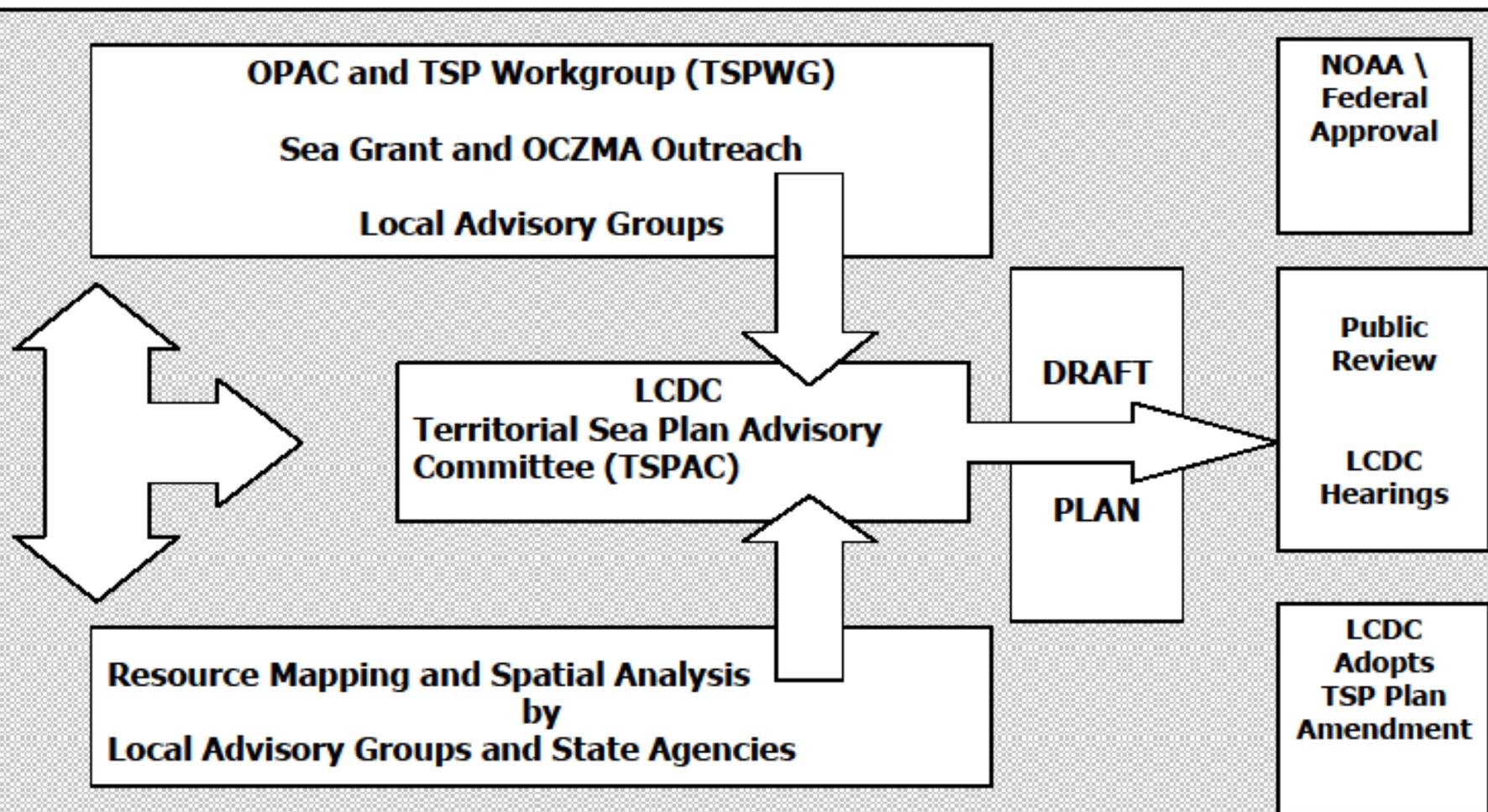
## ***DLCD Territorial Sea Planning for Renewable Energy Siting*** **Schematic Timeline**

2008

2009

2010

2011





[Site Map](#) [Accessibility](#) [Contact](#)

## Decision Support for Marine Spatial Planning

[Decision Support Tool](#) [Services](#) [News](#) [FAQ](#) [Blog](#) [Log in](#)



**Take a Tour**



**Launch MarineMap DST**

**Twitter / MarineMap**

MarineMap: A (no-so) brief history of MarineMap:  
<http://tinyurl.com/24o75xk>  
 Sep 15, 2010

MarineMap is a web-based [decision support tool](#) for open and participatory spatial planning in the marine environment. MarineMap offers a simple, flexible and powerful means of gathering expertise from resource managers, scientists, stakeholders and public in a process of collaborative decision making.

The MarineMap Consortium brings together personnel and skills from [UC Santa Barbara](#), [Ecotrust](#), and [The Nature Conservancy](#). We create open-source spatial tools that integrate and illuminate the human dimensions of marine science and policy.



**New!** MarineMap Consortium [wins award](#) for Innovation in Technology from the U.S. Institute for Environmental Conflict Resolution.

*"MarineMap gets people honestly talking about where they can find common around."*

# Oregon Marine Map

MarineMap Decision Support Tool - Mozilla Firefox

File Edit View History Bookmarks Tools Help

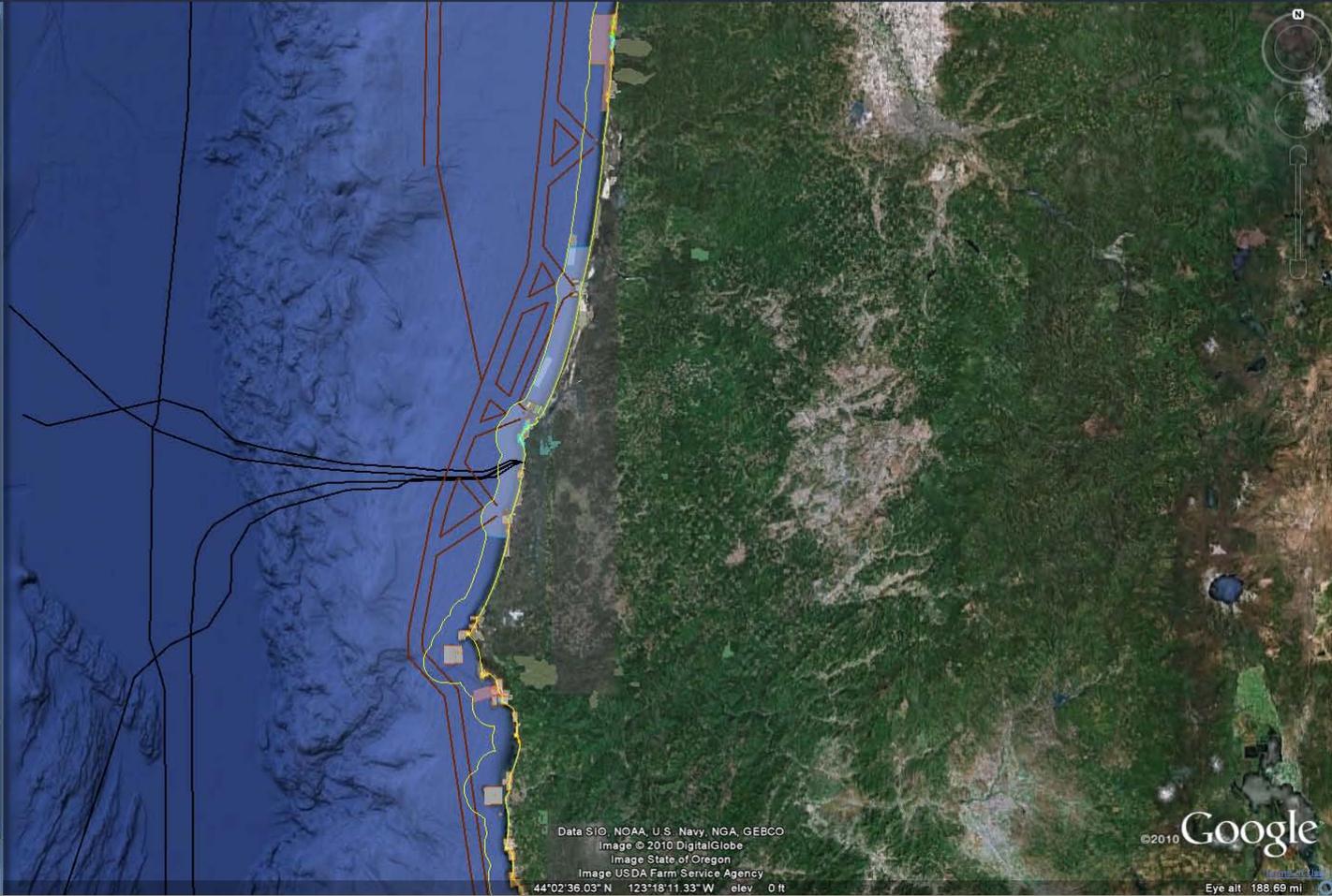
http://oregon.marinemap.org/

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### Areas of Interest

### Data Layers

- BASE\_Territorial\_Sea
  - BASE\_Territorial\_Sea
- Oregon
  - Human Uses Layers
    - Shipwrecks (NOAA AWOIS)
    - Telecommunication Cables (OFCC, 2005)
    - Coastal Discharge Permitted Sites
    - Towlone Agreement (WA Sea Grant, 2007)
    - Dredge Material Disposal Site (ACOE, 2008)
    - Wave Energy Preliminary Permit Sites (FERC, 2009)
  - Biological Layers
  - Marine Reserves Process Layers
    - Marine Reserves Process Layers
  - Marine Management
    - Oregon Marine Spatial Planning Grid (2010)
    - Oregon Territorial Sea (3 nm)
    - State Designated Marine Managed Areas, ODFW
  - Terrestrial Management
    - Oregon State Parks (OPRD, 2008)
    - Protected Areas Ownership (Wildlife Conservation Plan)
    - Oregon Islands National Wildlife Refuges
    - Rocky Shores Inventory, Territorial Sea Plan (2002)
  - Base Layers
  - Nautical Charts
- Fishing Data Layers
  - Fishing Ground Maps
    - Legend
    - Ports
      - Depoe Bay
      - Charleston
      - Port Orford
- Google Earth Layers



Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
Image © 2010 DigitalGlobe  
Image State of Oregon  
Image USDA Farm Service Agency  
44°02'36.03" N 123°18'11.33" W elev. 0 ft

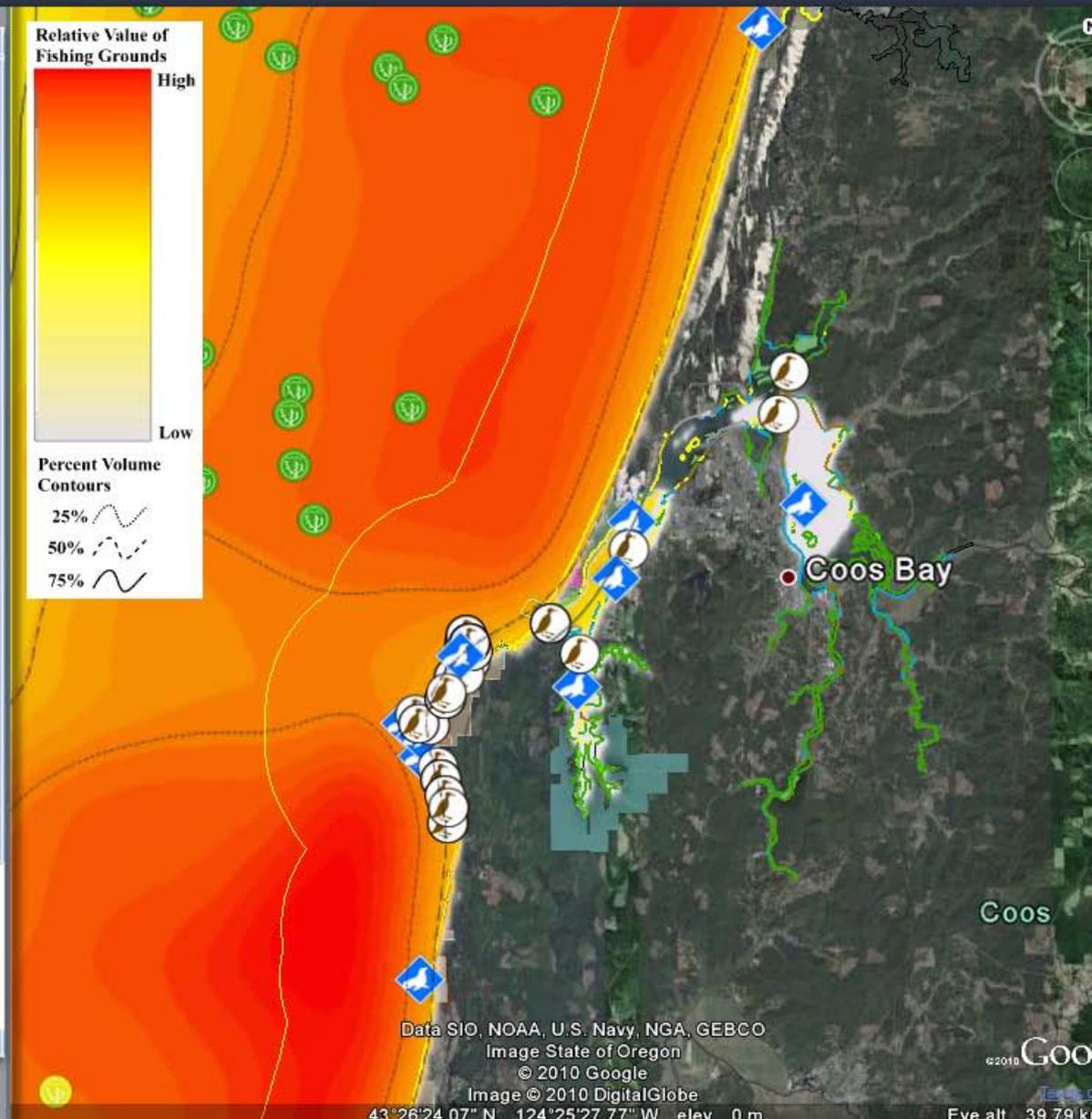
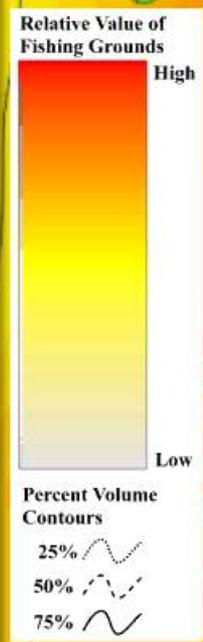
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Done

### Layers

- Territorial Sea Boundary
- Human Uses Layers
- Biological Layers
- Marine Reserves Process Layers
- Marine Management
- Terrestrial Management
- Base Layers
- Nautical Charts
- Fishing Ground Maps
  - Legend
  - Ports
    - Astoria
    - Garibaldi
    - Salmon River
    - Depoe Bay
    - Newport
    - Florence
    - Charleston/Bandon/Winchester Bay
    - Port Orford
    - Brookings/Gold Beach
- Consumptive Data
  - Non-Consumptive Data Layers



# Oregon MSP Partnership

- State Agencies: DLCD/ODFW/DSL/OPRD
- Federal agencies: FERC, BOEM, NOAA NMFS
- OCZMA: local governments, ports and special districts
- Community Advisory Committees (Renewable Energy) POORT, SOORC, FINE, FACT, NSAT, FOORC
- Community Teams (Marine Reserves) Cape Falcon, Cape Perpetua, Cape Arago, Cascade Head, Otter Rock and Redfish Rocks
- OWET
- OPAC \ STAC
- Ecotrust
- Surfrider Foundation
- Conservation Community (TNC, OSCC, Our Ocean)

# Funding for MSP

## Marine Reserves Designation

- New Carissa insurance funds

## Marine Renewable Energy Planning

- DLCDC Federal CZM
- Ecotrust
- Packard Foundation
- ODFW
- OWET

Most funding is directed toward projects and not long-term program capacity. Funds for planning and implementation (state and regional) are uncertain.

# Stay Tuned

<http://www.oregonocean.info/>

